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EXAMINER

HASTINGS, KAREN M

ART UNIT

PAPER NUMBER

1731

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/074551

Applicant(s)

Grabscheid et al

Examiner

HASTINGS

Group Art Unit

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*—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—***Period for Reply**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication .
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status Responsive to communication(s) filed on 2/2002 This action is FINAL. Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 1 1; 453 O.G. 213.**Disposition of Claims** Claim(s) 1 - 24 is/are pending in the application.

Of the above claim(s) _____ is/are withdrawn from consideration.

 Claim(s) _____ is/are allowed. Claim(s) 1-24 is/are rejected. Claim(s) _____ is/are objected to. Claim(s) _____ are subject to restriction or election requirement.**Application Papers**

- See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- The proposed drawing correction, filed on _____ is approved disapproved.
- The drawing(s) filed on _____ is/are objected to by the Examiner.
- The specification is objected to by the Examiner.
- The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d). All Some* None of the CERTIFIED copies of the priority documents have been received. received in Application No. (Series Code/Serial Number) _____. received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).

*Certified copies not received: _____.

Attachment(s)

- Information Disclosure Statement(s), PTO-1449, Paper No(s). 3 Interview Summary, PTO-413
- Notice of Reference(s) Cited, PTO-892 Notice of Informal Patent Application, PTO-152
- Notice of Draftsperson's Patent Drawing Review, PTO-948 Other _____

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Claim 16 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention.

Claim 16 line 2 "a said" appears to be a mistake; it appears "said" should be deleted.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. § 103(a), the examiner presumes that the subject matter of the various

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claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. § 103(c) and potential 35 U.S.C. § 102(f) or (g) prior art under 35 U.S.C. § 103(a).

Claims 1-24 are rejected under 35 U.S.C. 102(b) as anticipated by EP '523, or, in the alternative, under 35 U.S.C. 103(a) as obvious over EP '523, as necessary with Braun et al.

EP '523 discloses each and every element set forth in claim 1 except that EP '523 does not specify that the forming roll angle wrap is smaller than 7°. However this appears to be inherent since EP '523 teaches at the top of page 4 line 6 that this is a so-called "kissing forming roll". It appears inherent from the description and from the Figures that the angle of wrap over forming roll 11 is very small and less than 7°.

Furthermore the angle of wrap of the twin wires around a forming roll is a well known result effective variable to control amount of dewatering. It is well settled that optimization of known result effective variables is within the level of ordinary skill in the art; see In re Boesch, 205 USPQ 215 (C.C.P.A. 1980).

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Furthermore if even necessary, Braun et al. is cited as it teaches in a similar twin wire forming section that the open forming roll 10 may be wrapped by the twin wires from 5 to 120°. See column 2 lines 40-50. This is evidence that wrapping a forming roll less than 7° is not only known to one of ordinary skill in the art but furthermore is evidence that the wrap angle is a well known result effective variable in twin wire papermaking forming.

EP '523 clearly teaches that forming roll 11 may be an open forming roll; they also teach at page 4 lines 35-36 that the diameter of the forming roll may be less than 1.4 meters (that is, EP '523 teaches the diameter may be from .5 to 1.5 meters, preferably .7 to 1 meters). There also is a forming suction box 22 immediately following the rotating forming roll 11; there also is clearly shown in the Figures a wedge shaped inlet nip as claimed; there also is clearly shown a central area with a plurality of dewatering elements and forming elements (that is another suction forming box 40 and yet another suction box 29 and forming strips flexibly mounted at 60, 61 opposite a suction box 40 - see Figure 1. Furthermore although apparatus is inherently capable of being operated with any stock consistency and therefore this is not a structural limitation on the former, nonetheless EP '523 at page 6 teaches that the consistency is .5

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to 1.7% coming from the head box which substantially overlaps the recited range of .4 to 2%.

Note also that EP '523 teaches on page 6 lines 20-23 that one of the essential features of this machine disclosed is that water is removed on the former rolls to a considerably lower extent than in a prior art bead former; this is noted since this is also one of applicants' stated goals, that is, to have minimal initial dewatering on the forming roll. See for example the instant specification at page 3 lines 18-19.

With respect to the dependent claims, these are all shown or alternatively suggested by EP '523 as necessary with Brun et al.

Note it is well known that one may have a honeycomb open surface or grooved, drilled, etc for an open forming roll. With respect to claims 7 and 8, note EP '523 explicitly teaches that the radius of forming suction box 22 may be from 2 to 8 meters and the radius of forming suction box 40 may be 3 to 8 meters; see page 4 lines 48-50; also page 5 lines 13-15.

With respect to claims 15, 16, 21, 22, and 24, these are all exemplified in the Figure 5 embodiment of EP '523. With respect to claim 17, the use of machine wide separating elements in head box nozzles is a well known conventional feature and it would have been prima facie obvious to use such an element for its well known advantages in the head box 32 of EP '523.

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Claim 17 is also rejected under 35 U.S.C. 103(a) as being unpatentable over the reference(s) as applied to claim 1 above, and further in view of WO '803 or Justus or Farrington, Jr.

Each of WO '803, Farrington, Jr. and Justus exemplifies the well known use of machine wide separating elements/dividers in a head box which feeds stock to a twin wire forming gap. Thus to have used a separating element in the head box 32 of EP '523 for the well known advantages of same would have been prima facie obvious to one of ordinary skill in the art.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Bubik et al. '933 is cited as it teaches an open forming roll 1 with a radius from .3 to 1 meters, that is a diameter of .6 to 2 meters. This open forming roll may also be a grill structure secured to a shell body.

Odell et al. 5,798,024 appears to be equivalent to WO '803 and also teaches a twin wire former that appears to anticipate at least claim 1 and others - note that the open forming roll 11 may be wrapped from anything less than 25° including 5 to about 25°. See claim 4 for example and the forming roll is equal to about 1.4 meters which clearly could read on a forming roll diameter ~~smaller than 1.4 meters~~ because of the "about" language in Odell et al. But in any event to avoid unduly multiple

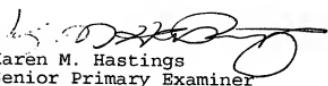
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rejections, WO `803 is only applied as necessary for claim 17 at this time.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Hastings whose telephone number is (703) 308-0470. The examiner can normally be reached on Monday through Thursday from 6:30 A.M. to 5 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Steve Griffin, can be reached on (703) 308-1164. The fax phone number for this Group is (703) 305-7115.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0651.


Karen M. Hastings
Senior Primary Examiner

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KMH/cdc
February 12, 2003


2-2003